PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : A61L 27/00 — A2

(11) International Publication Number: WO 00/54822

(43) International Publication Date: 21 September 2000 (21.09.00)

(21) International Application Number: PCT/GB00/00913

(22) International Filing Date: 13 March 2000 (13.03.00)

(30) Priority Data:
9905759.8 13 March 1999 (13.03.99) GB

(71) Applicant *(for all designated States except US)*: BIOINTERACTIONS LTD. [GB/GB]; University of Reading, Innovation Centre, Philip Lyle Building, Reading RG6 6BX (GB).

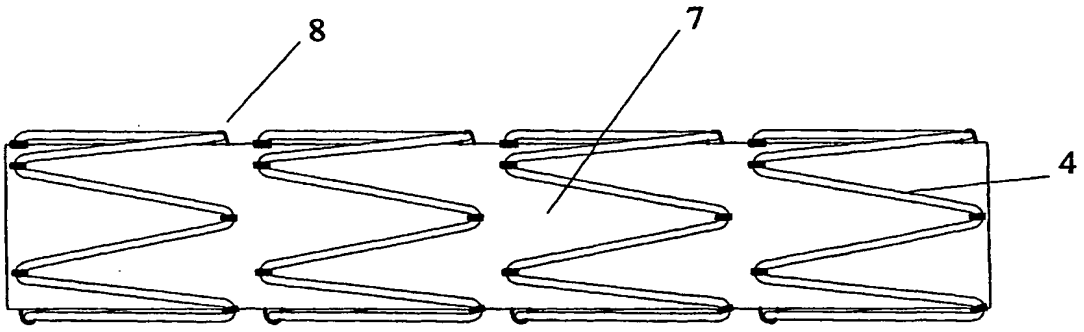
(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: LUTHRA, Ajay, Kumar [GB/GB]; 219 Somervell Road, South Harrow, Middlesex HA2 8UA (GB). SANDHU, Shivpal, Singh [GB/GB]; 63 Lascelles Road, Slough, Berkshire SL3 7PW (GB). SHARMA, Anoop, Kumar [GB/GB]; 26 High Street, Cranford, Middlesex TW5 9RG (GB). HUDSON, John, Overton [GB/GB]; 1A Salcombe Drive, Glenfield, Leicester LE3 8AG (GB).

(74) Agent: URQUHART-DYKES & LORD (READING); 1 Richfield Place, 12 Richfield Avenue, Reading RG1 8EQ (GB).

(81) Designated States: AU, CA, JP, NO, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
Without international search report and to be republished upon receipt of that report.

(54) Title: BIOCOMPATIBLE ENDOPROSTHESES



(57) Abstract

A highly biocompatible vascular endoprosthesis designed to reduce the tendency to restenosis after treatment for vascular disease. The vascular endoprosthesis comprises an array of cylindrical elements (4) arranged internally or externally and secured (8) to a continuous tubular element (7). This composite device is described as an arrayed stent graft. The cylindrical elements of the arrayed stent graft are constructed of metal or other suitable material, and the tubular element may be either knitted or woven textile, a thin walled polymer tube, a thin walled elastomeric tube or a composite of two or more of these or other compounds. All external surfaces of the arrayed stent graft are composed of biocompatible material consisting of a polymer having both non-thrombogenic and anti-thrombogenic properties on the same polymer backbone or, if required, only non-thrombogenic or only anti-thrombogenic properties as described in WO97/41164. In addition to use in the vascular system the device has applications in other body canals and vessels including biliary stenting and transjugular intrahepatic portosystemic stent shunting (TIPSS).